

REMARKS

Entry of the foregoing, reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action summary, claims 1-51 are pending. Claims 17-51 were withdrawn from further consideration on the merits as being drawn to a non-elected invention.

By the present response, claim 5 has been amended, claims 17-51 canceled and claims 52-66 have been added. Therefore, upon entry of the present response, claims 1-16 and 52-66 are pending await further consideration on the merits.

CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,437,999 to Diebold et al. (hereafter "*Diebold et al.*") in view of U.S. Patent No. 4,217,374 to Ovshinsky et al. (hereafter "*Ovshinsky et al.*") on the grounds set forth in paragraph four of the Official Action. For at least the reasons noted below, the rejection should be withdrawn.

The present invention is directed to an electrochemical test device suitable for determining the presence or concentration of chemical and biochemical components in aqueous fluid samples and body fluids such as whole blood. The advantages of the present invention over conventional test devices are discussed in previous responses.

An electrochemical test device instructed according to the principles of the present invention is embodied in claim 1. Such a device includes a non-conductive surface comprising *a non-conductive coating affixed to one side of a flexible material*; a working electrode comprising *an amorphous semiconductor material affixed to the non-conductive surface*, said working electrode having a first electrode area, a first lead and a first contact pad; a counter electrode comprising an amorphous semiconductor material affixed to the non-conductive surface, said counter electrode having a second electrode area, a second lead and a second contact pad; and a reagent capable of reacting with the analyte to produce a measurable change in potential which can be correlated to the presence or concentration of the analyte in the fluid sample, said reagent overlaying at least a portion of the first electrode area of the working electrode.

Diebold et al., which is discussed on page two of the present specification, discloses several embodiments of an electrochemical sensor and its method of production. However, none of the embodiments discussed therein disclose or suggest the invention as recited in claim 1 for at least the following reasons.

A first embodiment of *Diebold et al.* is depicted in Figures 1, 5, 6 and 7a-8b. In this embodiment, the device is constructed by depositing an electrically conducting material 1 onto a thin support material 2 (column 3, lines 52-54). The combination of conducting material 1 and support 2 forms a "metallized thin support" 3. This metallized support 3 is then affixed to a first insulating substrate 4. *Diebold et al.* teaches that the insulating 4 "could be any suitable non-conductive glass or plastic substrate with the desired supportive

rigidity" (column 4, lines 31-32). By contrast, claim 1 requires that an amorphous semiconductor material be affixed to a non-conductive surface, the non-conductive surface being defined by a non-conductive coating affixed to one side of a flexible material. The first embodiment of *Diebold et al.* clearly lacks any such flexible material, much less a non-conductive coating affixed thereto. Thus, claim 1 is not anticipated by, or obvious from, the first embodiment of *Diebold et al.*

A second embodiment of *Diebold et al.* is depicted in Figure 2. In this embodiment, *Diebold et al.* teaches that "the electrically conducting material is deposited directly on a more flexible first insulating substrate" (column 5, lines 59-61). By contrast, claim 1 requires an intervening coating between a substrate and the amorphous semiconductor material. The second embodiment of *Diebold et al.* clearly teaches away from such a construction. Namely, the second embodiment of *Diebold et al.* would lead one of ordinary skill in the art to apply a conductive material directly upon a substrate material.

A third embodiment of *Diebold et al.* is depicted in Figure 3. In this embodiment, a copper layer 30 is laminated directly to a fiber glass substrate 31. By contrast, claim 1 requires that an amorphous semiconductor material be affixed to a non-conductive surface defined by a non-conductive coating affixed to one side of a flexible material. The third embodiment of *Diebold et al.* lacks both a flexible material, as well as a an intervening non-conductive coating affixed to one side of such a flexible material. Thus, the third

embodiment of *Diebold et al.* not only fails to disclose or suggest the subject matter of claim 1, but teaches away from the construction recited therein.

A fourth embodiment of *Diebold et al.* is depicted in Figure 4 therein. In this fourth embodiment, an electrically conductive anchor or stabilizing layer 38, as well as a second electrically conductive layer 39 are applied to a thin support material 40. The combination of the electrically conductive materials 38 and 39, and the thin support 40 form a metallized support layer 41. The metallized support layer 41 is then affixed to a first insulating substrate 42, of the same type discussed above in connection with the first embodiment (i.e., a relatively rigid fiber glass, glass or plastic) (column 7, lines 47-49). Thus, the fourth embodiment of *Diebold et al.* fails to disclose or suggest affixing an amorphous semiconductor material to a non-conductive surface, wherein the non-conductive surface is defined by a non-conductive coating applied to one side of a flexible material. In particular, the fourth embodiment of *Diebold et al.* lacks such a non-conductive coating, as well as a flexible substrate material.

As previously noted, the embodiment depicted in Figures 7a-8b has a construction that corresponds to the first embodiment depicted in Figure 1. Namely, a conductive material 61 is deposited upon a thin support material 62, which forms a metallized support layer 63. This metallized support layer 63 is then fixed to a relatively rigid insulating substrate 64.

Therefore, for at least the reasons noted above, *Diebold et al.* fails to disclose or suggest the invention as recited by claim 1.

Ovshinsky et al. is applied as teaching use of an amorphous semiconductor material. However, *Ovshinsky et al.* does nothing to cure the above-noted deficiencies noted in connection with *Diebold et al.* Moreover, even if the teachings of *Ovshinsky et al.* were applied, one of ordinary skill in the art would have been led even further away from the presently claimed invention.

It is important to keep in mind that the teachings of prior art references must be considered as a whole. It is clearly improper to pick and choose from among the various teachings contained in the prior art reference in an attempt to reconstruct the prior art to meet the requirements of a claimed invention. *Ovshinsky et al.* teaches the development of a semiconductor film for such applications as the construction of solar cells. In this regard, *Ovshinsky et al.* clearly teaches application of an amorphous semiconductor material to a conductive surface, and not to a non-conductive surface as required by claim 1 (column 15, lines 9-19).

For at least the reasons noted above, the rejection is improper and should be withdrawn.

Claims 2-16 depend either directly or indirectly upon claim 1. Thus, these claims are also distinguishable over the applied prior art references for at least the same reasons noted above.

Newly submitted claims 52 and 60 recite further distinguishing features of the present invention. The subject matter of claims 52 and 60 are clearly not disclosed nor suggested by the prior art references.

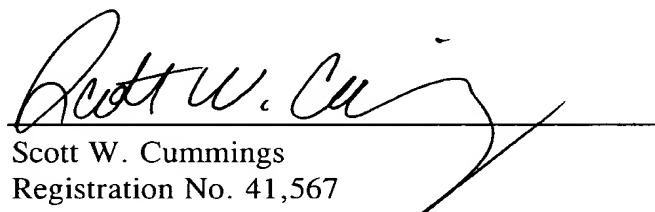
CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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